

OFFICE OF STRATEGIC SERVICES
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HUNGARY'S ANNUAL CAPACITY TO PAY REPARATIONS

Description

An estimate, based on analysis of the pattern of Hungary's imports and exports, of that country's ability to meet demands for reparations.

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N O T E

All value figures in the present report are expressed in 1936-37 Hungarian prices, translated into dollars at the rate of exchange prevailing in that year. The estimates given in Table 2 for necessary imports after the war take account only of physical changes from the 1937 level, and not of possible price movements.

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SUMMARY

1. On the basis of national income figures, it is estimated that Hungary could pay on reparations account a maximum of about \$210 million annually, but for a short period only, and with the domestic standard of living held to the level prevailing at the depth of the depression.

2. A better appraisal of Hungary's capacity to pay reparations may be gained from an examination of the pre-war export pattern. Such an examination, excluding the transfer of existing assets and the use of Hungarian labor for reconstruction, indicates that Hungary could export about \$50 million a year on reparations account.

3. This estimate presumes that the Hungarian economy is not carefully re-organized in the interest of maximizing reparations. With efficient and drastic control, the amount of possible reparations might be substantially increased.

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HUNGARY'S ANNUAL CAPACITY TO PAY REPARATIONS¹

I. NATIONAL INCOME

The national income of Hungary in the fiscal year 1936-37 was estimated at Pengö 4.4 billion (Table 1). At the 1937 exchange rate, this amounted to about \$870 million.² The real national income appears to have risen somewhat above this level during the war.³ The 1936-37 figure will be taken, however, as a tentative indication of the output that might be attained in the first year after the close of hostilities.

The 1936-37 national income represented an increase of about Pengö 1.1 billion from the depression year 1932-33, after correcting for price changes. (All estimates are in

1. The boundaries of Hungary, for purposes of this memorandum, are taken to be those existing at the beginning of 1938. It is assumed, that is, that territory acquired from Czechoslovakia, Rumania, and Yugoslavia since that date will be given up.

2. Pengö were converted at the rate of 19.779 cents per Pengö. See Federal Reserve Bulletin, September 1944, p. 947. This rate reflects the effect of various premiums on foreign currencies established by the National Bank of Hungary in lieu of formal exchange depreciation. Dollar figures on Hungarian trade given in the Foreign Commerce Yearbook, 1939 (US Bureau of Foreign and Domestic Commerce, 1942), pp. 61-62 were converted at the official rate of 29.5582 cents per pengö.

3. See, for example, Gratz, Gustav, ed., The Hungarian Economic Year Book, 1940. Pester Lloyd, Budapest, 1940. Pp. 26 ff.

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Table 1. HUNGARY: NATIONAL INCOME, 1924-25 TO 1936-37
 (Fiscal years beginning 1 July. In
 billions of pengő)

<u>Year</u>	<u>Income in current prices</u>	<u>Income in 1924-26 prices</u>	<u>Weighted retail price index</u>
1924-25	4.9	5.0	100.6
1925-26	5.4	5.8	97.3
1926-27	5.6	5.8	102.1
1927-28	5.7	5.9	101.0
1928-29	5.9	6.3	98.4
1929-30	5.5	6.2	92.5
1930-31	4.7	5.9	82.4
1931-32	4.0	5.6	74.5
1932-33	3.7	5.5	70.4
1933-34	3.5	6.1	61.1
1934-35	3.7	6.1	62.3
1935-36	4.0	6.6	63.0
1936-37	4.4	7.1	64.6

Source: Matolcsy, Matthias, and Varga, Stephen, The National
 Income of Hungary, 1924/25 - 1936/37. King, London, 1938. p. 68

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1936-37 prices. As will be seen from Table 1, the increase was peng8 1.7 billion in terms of the average prices of the two years 1924-25 and 1925-26.) Hence it might be concluded that Hungary could export on reparations account at least peng8 1.1 billion (about \$210 million a year from current production, if living standards could be held at the level prevailing at the depth of the depression.

Such an estimate would be unduly high, however. A large part of the increase in output between 1932-33 and 1936-37 consisted of goods and services that could not be transferred out of the country -- housing, for example, and distribution services. The resources used for these purposes could be shifted to some extent into the production of reparations commodities, but this would involve a loss of productivity, at least in the short run. Furthermore, maintenance of a high level of output for reparations purposes would require the expenditure of more resources on repair and upkeep of equipment than was necessary to maintain the smaller production of 1932-33. Hence the figure of \$210 million a year must be interpreted as the extreme upper limit of what could be exacted from Hungary if its economy were completely organized in the interest of the receiving countries; and even on this condition it could be exacted for only a short period.

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II. PRE-WAR EXPORTS

A better assessment of Hungary's reparations potential may be derived by examining its pre-war export pattern. Hungarian exports in 1937 amounted to about \$116 million and imports to \$96 million, leaving an export surplus of \$20 million. By 1939, total trade had declined somewhat but, owing largely to boundary changes, the export balance had increased. It is believed that the real volume of trade has changed very little during the war, although there has been a considerable increase in value because of price rises.¹

Hungarian imports in 1937 consisted largely of raw materials necessary for the operation of the country's industry. Industrial products constitute only a small fraction of Hungary's exports, however, and it should therefore be possible to cut imports in some line rather sharply without curtailing reparations payments correspondingly. The largest single item -- timber -- could be reduced considerably, for example. An attempt has been made in Table 2 to indicate the necessary volume of imports in the first full year after the close of hostilities.

In making these estimates the procedure has been, in general, to assume that those imports entering into goods for Hungarian consumption will be held at about the 1933

1 Cf. Hungary, Basic Handbook, Part II, "Economic Survey", p.47.

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Table 2. HUNGARY: IMPORTS, 1937, AND POSSIBLE LEVEL IN FIRST FULL YEAR AFTER THE CLOSE OF HOSTILITIES

<u>Commodity</u>	<u>1937</u>		<u>Post-war year</u>
	<u>Value</u> (millions of pengő)	<u>Percent</u> of <u>total</u>	<u>Value</u> (millions of pengő)
<u>Timber</u>	65	13.4	27
Constructional	57		20
Firewood	5		5
Charcoal	2		2
<u>Metals</u>	48	10.0	48
Pig iron	6		6
Iron manufactures	6		6
Scrap iron	5		5
Semifinished iron and steel	6		6
Copper	12		12
Zinc	3		3
Lead	3		3
<u>Vegetable</u> <u>products</u>	46	9.5	34
Cotton, raw	25		15
Jute and tow	5		5
Rubber	4		4
Rags	4		4
<u>Textiles</u>	41	8.0	25
Silk and arti- ficial yarns	12		10
Woolen tissues	6		3
Cotton tissues	5		2
Wool, combed	5		2
Wool yarn	4		2
Cotton yarn	4		2
<u>Fuels</u>	42	8.5	38
Crude mineral oil	19		15
Coke	10		10
Coal	6		6
<u>Animal products,</u> <u>not prepared</u>	35	7.5	25
Hides and skins	30		20
Wool, raw	3		2
<u>Paper</u>	30	6.5	20
Pulp	12		9
Newsprint	4		3
Packing	3		3
Cardboard	2		2

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Cotton, raw	25		15
Jute and tow	5		5
Rubber	4		4
Rags	4		4
<u>Textiles</u>	41	8.0	25
Silk and arti- ficial yarns	12		10
Woolen tissues	6		3
Cotton tissues	5		2
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Cardboard	2		2

(Table 2, continued)

<u>Commodity</u>	<u>1937</u>		<u>Post-war year</u>
	<u>Value</u> (millions of pengő)	<u>Percent</u> of total	<u>Value</u> (millions of pengő)
<u>Machinery</u>	26	5.4	15
<u>Non-electrical</u>	20		11
<u>Electrical</u>	6		4
<u>Minerals</u>	20	4.1	20
<u>Iron ore and</u>			
<u>pyrites</u>	9		9
<u>Salt</u>	3		3
<u>Raw phosphates</u>	1		1
<u>Fruit, vegetables,</u>			
<u>tobacco</u>	16	3.3	10
<u>Fruit</u>	8		4
<u>Tobacco</u>	5		5
<u>Dyeing and tan-</u>			
<u>ning materials</u>	16	3.3	10
<u>Coal, tar dyes</u>	11		7
<u>Quebracho</u>			
<u>extract</u>	1		1
<u>Vehicles</u>	12	2.5	9
<u>Automobiles and</u>			
<u>parts</u>	9		6
<u>Miscellaneous</u>	87	18.0	80
<u>TOTAL</u>	484	100.0	326

Source: Hungary, Basic Handbook, Part II, "Economic Survey,"
pp. 43-44.

level, while those entering into exports will continue at the 1937 rate. The procedure is necessarily rough and somewhat arbitrary.

When the resulting estimates are compared with 1937 exports (Table 3), it appears that an annual export surplus of about Pengö 262 million (\$52 million) might be forthcoming for reparations payments. This figure could be increased to the extent that the recipient countries are more successful in reducing the Hungarian standard of living than Germany was during the war years. The difficulties of such a program are intensified by the poverty of the country. According to Colin Clark's estimates, the real income per head of working population in Hungary was only about half of that in France or Germany (although almost 1 1/2 times as great as in Rumania).¹

It should also be noted that Germany and Austria together took 42 percent of Hungary's exports in 1937. This percentage increased to 49 in 1939.² These trading relationships will probably be disrupted after the war, and finding alternative markets may present serious difficulties. Furthermore, the bulk of Hungarian exports consists of agricultural products, while the most urgent requirements of the reparations

¹ Clark, Colin, The Conditions of Economic Progress. Macmillan, London, 1940. P. 41. The figures refer to the decade 1925-34.

² Hungary, Basic Handbook, Part II, p. 45. US Bureau of Foreign and Domestic Commerce, Foreign Commerce Yearbook, 1939, p. 63.

Table 3. HUNGARY: EXPORTS, 1937

<u>Commodity</u>	<u>Value (mil- lions of pengö)</u>	<u>Percent of total</u>
<u>Cereals, pulses, seeds</u>	140	23.4
Wheat & spelt	62	
Corn	19	
Rye & meslin	19	
Pulses	15	
Lucerne & clover seed	14	
Oilseeds	4	
<u>Animal products for food</u>	74	12.6
Poultry, dead	23	
Lard	12	
Other fat	7	
Butter	10	
Eggs	9	
Meat	6	
<u>Livestock</u>	73	12.5
Cattle	38	
Swine	24	
Horses	7	
<u>Machinery</u>	42	7.1
Electrical	28	
Non-electrical	14	
<u>Metals</u>	38	6.4
Manufactures of iron & steel	19	
Semifinished iron & steel	16	
<u>Other products of food industry</u>	38	6.4
Wheat flour	14	
Malt	10	
Canned meats	3	
Tomato juice	3	
<u>Textiles</u>	23	4.0
Cotton tissues	5	
Silk tissues (incl. artificial)	5	
Jute tissues	3	
Hemp yarns	2	
Cordage	2	
<u>Textile manufactures</u>	9	1.5
Women's clothing	6	
<u>Animal products, not prepared</u>	22	3.9
Feathers	18	
<u>Fruit, vegetables, & tobacco</u>	21	3.8
Fresh fruit	10	
Fresh vegetables	4	
Tobacco	3	
<u>Leather & manufactures</u>	14	2.4
Worked skins	11	
Shoes	2	
Gloves	1	
<u>Miscellaneous</u>	94	16.0
TOTAL	588	100.0

Source: Hungary, Basic Handbook, Part II, "Economic Survey," pp. 43-44.

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claimants will (after the first phase of general scarcity) be for industrial products and construction materials. Both of these considerations tend to reduce the amount that Hungary will be able to pay.

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III. EXISTING ASSETS AND OBLIGATIONS

No attempt has been made in this memorandum to estimate the volume of existing Hungarian assets that might be transferred as reparations. The types of industrial equipment that might be available are indicated roughly by Table 4, which shows the gross value of industrial production in 1938, by type of industry.

Table 4

HUNGARY: GROSS VALUE OF INDUSTRIAL PRODUCTION, 1938

<u>Industry</u>	<u>Value</u> (millions of pengö)	<u>Percent</u> <u>of total</u>
Foodstuffs	921.2	30.2
Textiles	466.6	15.3
Iron and metals	433.4	14.2
Machinery	308.4	10.1
Chemicals	301.8	9.8
Electric power stations	136.9	4.5
Leather	113.7	3.7
Stone, china, and glass	110.0	3.6
Wood and joinery	79.4	2.6
Clothing	75.8	2.5
Paper	56.1	1.9
Printing	47.5	1.6
TOTAL	3,050.8	100.0

Source: Graz, Gustav, ed., The Hungarian Economic Yearbook, 1940. Pester Lloyd, Budapest, 1940, p. 97.

The livestock population, a more important potential source of reparations payments, was estimated as follows for 1938 (in thousands):¹

Cattle	1,832
Horses	814
Pigs	3,110
Sheep	1,629

¹ Graz, op. cit., p. 74.

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It is assumed that the new reparations obligation will have priority over existing Hungarian foreign debts and the unpaid balance of reparations liability under the Young Plan.

The Hungarian government's outstanding foreign debt at the end of 1937 amounted to Pengö 1,118.2 million, of which Pengö 789.2 million was funded.¹ Most of this was wholly or partially in default before the outbreak of the war. In 1943, about Pengö 230 million of Hungarian securities held in German-occupied countries were repatriated. In addition, a clearing balance of Pengö 1,600 against Germany had been accumulated by the end of 1943.²

Hungary's unpaid obligation under the Young Plan is approximately 90 million old gold dollars -- about 150 million current dollars.³

1 UK Department of Overseas Trade, Report on Economic and Commercial Conditions in Hungary, March 1939, p. 6.

2 Hermberg, Paul, Foreign Contributions to German War Financing, Board of Governors of the Federal Reserve System, Division of Research and Statistics, August 1944, p. 34.

3 Myers, Denys P., The Reparation Settlement, 1930. World Peace Foundation, Boston, 1930.

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IV. CONCLUSIONS

Neglecting the transfer of existing assets and also the possibility of using the direct services of Hungarian labor for reconstruction work outside the country, it may be concluded that Hungary could export about \$50 million a year on reparations account if its economy were not carefully re-organized in the interests of the recipients. With efficient and drastic control, this amount might be increased substantially; but the difficulties of such control would be great and the advantages, in relation to the needs of the claimant countries, rather small.

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